

CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-22 (Canceled).

23. (Currently Amended) A superconductive article comprising:
a substrate tape; and
a superconductive layer, wherein the superconductive layer comprises a plurality of
individually identifiable superconductive films of the same material, the plurality
of individually identifiable superconductive films (i) comprising at least 3
superconductive films, and (ii) being disposed one atop another, atomically
bonded to each other, and free of intervening bonding layers between
superconductive films,
wherein at least one of the individually identifiable superconductive films
includes $\text{YBa}_2\text{Cu}_3\text{O}_7$, and another of the individually identifiable superconductive
films includes $\text{SmBa}_2\text{Cu}_3\text{O}_7$.

24. (Previously Presented) The superconductive article of claim 23, wherein the substrate tape comprises a metal.

25. (Previously Presented) The superconductive article of claim 23 wherein the substrate tape contains nickel.

26. (Previously Presented) The superconducting article of claim 25 wherein the substrate tape comprises stainless steel.

27. (Previously Presented) The superconducting article of claim 25 wherein the substrate tape comprises a nickel alloy.

28. (Previously Presented) The superconducting article of claim 23 wherein the substrate tape comprises a previously deposited buffer layer.

29. (Previously Presented) The superconducting article of claim 28 wherein the buffer layer has a bi-axial texture.

30. (Previously Presented) The superconducting article of claim 28 wherein the buffer layer comprises yttrium-stabilized zirconia (YSZ).

31. (Previously Presented) The superconducting article of claim 23 wherein the superconducting layer comprises a high-temperature superconductor.

32. (Previously Presented) The superconducting article of claim 31 wherein the high temperature superconductor layer comprises a rare earth oxide.

33. (Currently Amended) The superconducting article of claim [[31]] 32 wherein the rare earth oxide comprises YBCO ($\text{YBa}_2\text{Cu}_3\text{O}_7$).

34. (Previously Presented) The superconducting article of claim 33 wherein the superconducting layer comprises Sm123 ($\text{SmBa}_2\text{Cu}_3\text{O}_7$)

35. (Canceled)

36. (Previously Presented) The superconducting article of claim 23 wherein the superconducting layer comprises at least 4 superconductive films.

37. (Previously Presented) The superconducting article of claim 23 wherein at least two of the superconductive films in direct contact with each other have different thicknesses.

38. (Previously Presented) The superconducting article of claim 23 wherein the superconductive layer has a thickness greater than 1.5 microns.

39. (Previously Presented) The superconducting article of claim 38 wherein the superconducting layer has a thickness greater than about 2 microns.

40. (Previously Presented) The superconducting article of claim 23 wherein each of the plurality of superconductive films does not exceed a thickness of 1.5 microns.

41. The superconducting article of claim 23 wherein the superconducting article has a current capacity of at least 100A/cm width.

42. (Previously Presented) The superconducting article of claim 23 wherein the superconducting article has a current density capability of greater than 0.6 MA/cm².

43. (Previously Presented) A superconducting article comprising:
a metal substrate tape containing a previously deposited buffer layer; and
a superconductive layer, wherein:

the superconductive layer comprises at least first, second and third individually identifiable superconductive films, the first and second, and the second and third superconductive films being disposed one atop another, atomically bonded to each other, and free of intervening bonding layers between superconductive films; and

at least one of the individually identifiable superconductive films includes YBa₂Cu₃O₇, and another of the individually identifiable superconductive films includes SmBa₂Cu₃O₇.